UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
OFFICE OF THE ADMINISTRATOR OF CIVIL AERONAUTICS
WASHINGTON 25, D. C.

TSO-C36

Effective
April 1, 1955

TECHNICAL STANDARD ORDER

SUBJECT: ILS LOCALIZER RECEIVING EQUIPMENT (FOR AIR CARRIER AIRCRAFT)

INTRODUCTION

Under Section 601 of the Civil Aeronautics Act of 1938, as amended, and Parts 4a and 4b of the Civil Air Regulations issued pursuant thereto, the Administrator of Civil Aeronautics is authorized to adopt standards for ILS localizer receiving equipment intended for installation in civil air carrier aircraft. In adopting these standards, consideration has been given to existing Government and industry standards. This Technical Standard Order is intended to serve as a criterion by which the product manufacturer may produce ILS localizer receiving equipment which will meet standards acceptable to the Civil Aeronautics Administration for installation in air carrier aircraft.

DIRECTIVE

Provision. The performance requirements as set forth in Radio Technical Commission for Aeronautics' paper entitled "Minimum Performance Standards - Airborne ILS Localizer Receiving Equipment" as amended (Paper 89-54/DO-59 and amendment, Paper 7-55/EC-245)* with the exception hereinafter noted, are hereby established as minimum safety performance standards for ILS localizer receiving equipment intended for use in all air carrier aircraft.

Exception. The exception applies to Section 3.0, MINIMUM PERFORMANCE STANDARDS UNDER ENVIRONMENTAL TEST CONDITIONS. Radio Technical Commission for Aeronautics' Paper 100-54/DO-60, dated April 13, 1954,** which is incorporated by reference in and thus is a part of Paper 89-54/DO-59, outlines environmental test procedures for equipment designed to operate under three different temperature ranges as specified therein under Procedures A, B, and C. Only ILS localizer receiving equipment which meets the operating requirements in the temperature range of -55°C to +55°C or -40°C to +55°C, whichever is applicable, as outlined under Procedure A or Procedure B of Paper 100-54/DO-60 is eligible under this Order.

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*Copies of these papers may be obtained from the RTCA Secretariat, Room 2036, T-5 Building, 16th and Constitution Avenue, N. W., Washington 25, D. C., at a cost of 30 cents per copy.

**Copies of this paper may be obtained from the RTCA Secretariat, Room 2036, T-5 Building, 16th and Constitution Avenue, N. W., Washington 25, D. C., at a cost of 20 cents per copy.

Application. ILS localizer receiving equipment complying with RTCA Paper 89-54/DO-59, dated July 15, 1954, as excepted above is hereby approved for use in all civil air carrier aircraft of United States registry. ILS localizer receiving equipment already approved by the Administrator prior to the effective date of this Order may continue to be installed in aircraft which have been type certificated prior to the effective date of this Order, and may be installed in aircraft.

(1) for which an application for original type certificate is made prior to the effective date of this Order,
(2) the prototype of which is flown within one year after the effective date of this Order, or
(3) the prototype of which is not flown within one year after the effective date of this Order, if due to causes beyond the applicant's control.

SPECIFIC INSTRUCTIONS

Marking. The following information shall be legibly and permanently marked on the equipment or attached thereto:

1. Name and address of manufacturer.
2. Equipment name.
3. Manufacturer's type or model designation.
4. Weight to the nearest pound and fraction thereof.
5. Serial number or date of manufacturer.
6. TSO number.
   Inclusion of the TSO number on the equipment will be accepted as evidence that the equipment meets the standards of this Order.
7. Category of equipment.
   Equipment which has been designed to operate over a temperature range of -55°C to +55°C as outlined under Procedure A of RTCA Paper 100-54/DO-60 shall be marked as Category A equipment.
   Equipment which has been designed to operate over a temperature range of -40°C to +55°C as outlined under Procedure B of this same paper shall be marked as Category B equipment.

Data Requirements. The manufacturer shall furnish to the Civil Aeronautics Administration, Aircraft Engineering Division, Attention: W-238, Washington 25, D. C., ten copies each of the manufacturer's operating instructions, schematic diagrams, and installation procedures for the equipment manufactured in accordance with this Order.

Effective Date. After April 1, 1955, this Order will constitute the basis for Civil Aeronautics Administration approval of ILS localizer equipment for use in all civil air carrier aircraft of United States registry.

Deviations. Requests for deviation from, or waiver of, the requirements of this Order, which affect the basic airworthiness of the equipment, should be addressed to the Chief, Aircraft Engineering Division, Office of Aviation Safety, Civil Aeronautics Administration, Washington 25, D. C.

CONFORMANCE. THE MANUFACTURER SHALL FURNISH TO THE CIVIL AERONAUTICS ADMINISTRATION, AIRCRAFT ENGINEERING DIVISION, ATTENTION: W-238, WASHINGTON 25, D. C., A WRITTEN STATEMENT OF CONFORMANCE SIGNED BY A RESPONSIBLE OFFICIAL OF HIS COMPANY, SETTING FORTH THAT THE ILS LOCALIZER RECEIVING EQUIPMENT TO BE PRODUCED BY HIM MEETS THE STANDARDS ESTABLISHED IN THIS ORDER. Immediately thereafter, distribution of the ILS localizer receiving equipment conforming with the terms of this Order may be started and continued.

The prescribed identification on the ILS localizer receiving equipment does not relieve the aircraft manufacturer, owner, or operator of responsibility for the proper installation of this equipment in his aircraft, nor waive any of the requirements of the existing Civil Air Regulations.

If complaints of nonconformance with the requirements of this Order are brought to the attention of the Civil Aeronautics Administration, and investigation indicates that such complaints are justified, the Administrator will take appropriate action to restrict the use of the product involved.

SOURCE OF PUBLICATION

Copies of this Technical Standard Order and other Technical Standard Orders may be obtained from the Civil Aeronautics Administration, Aviation Information Office, Washington 25, D. C.

F. B. Lee

Administrator of Civil Aeronautics